

The Role of Ethics-Based Learning on the Professional Attitudes of Medical Professional Education Students: Literature Review

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Abstract

Professionalism is a fundamental competency in medical education that encompasses ethical values, attitudes, and behaviors necessary to maintain public trust and ensure quality patient care. Ethics-based learning has increasingly been recognized as an important educational approach for fostering professional attitudes among medical students. This literature review aimed to examine the role of ethics-based learning in shaping the professional attitudes of medical professional education students. The study employed a literature review approach by systematically searching scientific publications through Google Scholar, PubMed, ScienceDirect, and ResearchGate using keywords related to ethics-based learning, medical education, and professionalism. Articles published within the last five to ten years and relevant to ethics education and medical professionalism were selected, analyzed, and synthesized. The review of eleven key studies revealed that ethics-based learning contributes positively to students' understanding of the principles of medical ethics, including autonomy, beneficence, non-maleficence, and justice. Educational approaches such as case-based discussions, ethical reflection, blended learning, experiential learning, and team-based learning were found to enhance ethical awareness, ethical reasoning, empathy, integrity, responsibility, communication skills, patient confidentiality, and commitment to patient safety. The effectiveness of ethics-based learning was further strengthened by clinical exposure, positive role models, supportive learning environments, and constructive feedback. However, several challenges remain, including curriculum time constraints, variations in teaching methods, and inconsistencies in professionalism assessment.

Introduction

Medical education is a constantly evolving field that requires continuous improvement to ensure proper training for future doctors. A well-structured curriculum helps medical students acquire the knowledge, skills, and attitudes needed to become good doctors and improve patient care. The medical curriculum primarily focuses on theoretical learning, followed by practice in various fields through clinical rotations. Case-based learning and clinical skills training have become part of the educational process, with the focus still being more on theory than on in-depth hands-on experience (Zhu et al., 2025; Brock, 2024). Each institution also has a different curriculum, so assessment is necessary to determine how effectively the curriculum prepares students for the increasingly complex world of medicine (Reddi & Javidi, 2025).

Core values in medical practice that are essential to a physician's humanistic outlook are incorporated into the domain of medical professionalism. In Indonesia, medical professionalism has been a topic of concern in recent years, with several complaints filed with the Indonesian Medical Discipline Honorary Council (MKDKI) regarding unsavory physician behavior. The lack of emphasis on professional and ethical values in medical education remains a challenge. This can lead to a lack of understanding and commitment to these values among physicians. Medical professionalism is a fundamental competency in medical professional

education (Guraya et al., 2021). Professionalism can be defined as the values, behaviors, and attitudes that foster professional relationships, public trust, and patient safety (Triplett et al., 2026; Zaidi & Naqvi, 2026). Expectations of physicians' professional behavior arise in a variety of healthcare settings. The importance of professionalism for medical students reflects a commitment to the professional skills and attitudes they will acquire reliably and foster public trust in the medical profession (Afdhaliyah et al., 2025).

In the context of modern medical education, an ethics-based learning approach is a crucial strategy for enhancing students' understanding of complex clinical ethical dilemmas. This approach encompasses cognitive development, the formation of reflective attitudes, moral decision-making skills, and sensitivity to human values. Through case discussions, ethical reflection, and experiential learning, students are expected to internalize ethical principles in daily clinical practice (Hlaing et al., 2023).

Ethical principles derived from Western ethics that have been recognized in the Indonesian healthcare world include patient autonomy, beneficence, non-maleficence (or the principle of double effect), and justice. These principles share similarities with ethical principles from an Islamic perspective. The harmony of ethics within the Islamic perspective is reflected in the Islamic medical code of ethics, which is based on the principles of piety, faith, autonomy, non-harm, virtue, justice, and rational action (Khairunnisa & Afrizal, 2025).

The application of ethics-based learning in medical professional education contributes positively to increasing students' ethical awareness and professional attitudes. This learning helps students navigate various clinical dilemmas, improves communication skills with patients, and strengthens their sense of responsibility in medical decision-making. This approach also encourages a more reflective, humanistic, and patient-centered learning environment (Karamzadeh et al., 2021).

The implementation of ethics-based learning still faces various challenges, such as time constraints in the curriculum, lack of training for instructors, and a variety of non-standardized teaching methods. Integrated and systematic curriculum development is necessary to ensure optimal implementation of ethics learning in medical professional education (Karamzadeh et al., 2021; Andersson et al., 2022).

This literature review on the influence of ethics-based learning on the professional attitudes of medical professional education students is highly relevant. The results of this study can provide a comprehensive overview of the effectiveness of ethics-based learning in shaping professional attitudes and serve as a basis for developing more innovative learning strategies oriented toward ethical values in medical education.

Method

Study Design and Search Strategy

This study employed a literature review approach to examine the role of ethics-based learning in shaping the professional attitudes of medical professional education students. Relevant scientific publications were identified through searches in Google Scholar, PubMed, ScienceDirect, and ResearchGate. The keywords included “ethics-based learning,” “medical education,” “professionalism in medical students,” “clinical ethics education,” and “medical professionalism training.”

Eligibility Criteria and Study Selection

Articles were included if they: (1) discussed ethics-based learning, medical education, or professionalism among medical students or medical professional education students; (2)

examined ethics education through clinical ethics teaching, ethical case discussions, ethical reflection, experiential learning, or related approaches; (3) were published in reputable national or international journals within the preceding 5–10 years; (4) were available in full text; (5) were written in English or Indonesian; (6) employed a clearly described quantitative, qualitative, mixed-methods, review, systematic review, scoping review, or integrative review design; and (7) addressed professional attitudes such as integrity, responsibility, empathy, effective communication, patient confidentiality, or commitment to patient safety.

The identified publications were screened according to the relevance of their titles, abstracts, and full-text content. Duplicate publications retrieved from more than one source were removed to ensure that each article was counted only once. Following the screening process, 11 key articles that met the eligibility criteria were included in the review.

Data Analysis and Synthesis

The selected articles were analyzed descriptively and synthesized narratively. Information was organized according to the study design and context, focus of the study, key findings, and relevance to the review objective. The findings were then grouped into major themes concerning understanding of medical ethics principles, ethical awareness and reasoning, student professionalism, and factors supporting or hindering the implementation of ethics-based learning.

Result and Discussion

The reviewed literature indicates that ethics-based learning plays a role in shaping the professional attitudes of medical students. A review of eleven key articles revealed a common finding: that structured and contextually designed ethics learning is related to strengthening the understanding of ethical principles, ethical awareness, ethical reasoning, and professional values such as integrity, responsibility, empathy, effective communication, and commitment to patient safety. A synthesis of this literature is presented in Table 1.

Table 1. Literature Synthesis on the Role of Ethics-Based Learning in the Professional Attitudes of Medical Students

No	Author, Year	Design/Context	Focus of Study	Key Results	Relevance to Title
1	Hlaing et al., (2023)	Qualitative case-based study; health professions students	Case discussions and ethical reasoning in addressing ethical dilemmas	Students apply the principles of autonomy, beneficence, non-maleficence, and justice in the ethical decision-making process.	Case-based learning forms ethical reasoning as the basis for professional behavior.
2	Karamzadeh (2021)	Quasi-experimental study; medical students	Case-based ethics learning using a blended learning approach	Case-based ethics learning and blended learning improve students' ethical learning outcomes.	Active ethics learning methods contribute to an understanding of ethics as the foundation of professionalism.

3	Suryadi et al. (2024)	Clinical ethics learning study; clinical phase	Clinical ethics learning for professional students	Clinical ethics learning from the professional stage helps students address ethical issues in medical practice.	The clinical context strengthens the application of ethical values in professional attitudes.
4	Oliver & Collins (2024)	Conceptual review; medical education	Hidden curriculum and role modeling in professionalism learning	Role models and the hidden curriculum shape professionalism through role modeling and practice.	The environment and role models contribute to the internalization of professional attitudes.
5	Shaikh et al. (2025)	Cross-sectional comparative study; preclinical and professional students	Self-assessment of ethics and professionalism	Clinical exposure strengthens aspects of professionalism such as patient confidentiality and communication skills.	Clinical exposure makes ethics learning more contextual in shaping professionalism.
6	Chen et al. (2024)	Integrative review; medical students	Empathy as part of professionalism	Empathy is closely related to professionalism and can be developed through education.	Empathy is a component of professional attitudes formed through ethics learning.
7	Sadeq et al. (2025)	Systematic review; professionalism education	Interventions, outcomes, and sustainability of professionalism education	Ethics-based professionalism education enhances professionalism, empathy, and compassion.	Ethics-based learning plays a direct role in enhancing professional attitudes.
8	Villegas et al. (2025)	Scoping review; undergraduate and graduate medical education	Professionalism assessment	Professionalism is taught through role modeling, simulation, and evaluation; feedback is an effective strategy.	Professionalism methods and assessments determine the success of professional attitude formation.
9	Alizadeh et al. (2025)	Systematic review; medical ethics education	Team-based learning (TBL) in	TBL improves knowledge, ethical	TBL as an ethics learning method contributes to the

			ethics education	reasoning, moral sensitivity, and decision-making skills.	formation of professionalism.
10	Noor et al., (2024)	Survey; medical and dental students	Perceptions and experiences of ethics and professionalism	There is a gap between ethical knowledge and professional behavior in the field.	Emphasizes the need for applicable ethics learning so that knowledge becomes a professional attitude.
11	Buhumaid et al., (2024)	Qualitative analysis of reflective essays; multicultural context	Professionalism learning journey	Professionalism learning occurs through the stages of awareness, acknowledgment, realization, and application.	Ethics-based learning and reflection shape professionalism gradually.

The Role of Ethics-Based Learning in Understanding the Principles of Medical Ethics

Ethics-based learning plays a role in developing students' understanding of the four basic principles of medical ethics: autonomy, beneficence, non-maleficence, and justice. Understanding these four principles provides a foundation for students in identifying ethical issues and formulating moral judgments in clinical practice. Research by Karamzadeh A (2021) shows that case-based ethics learning combined with a blended learning approach improves students' learning outcomes regarding these principles.

Mastery of ethical principles is closely related to students' ability to apply them in clinical reasoning. Research by Hlaing et al. (2023) shows that case-based group discussions provide students with the opportunity to directly apply the principles of autonomy, beneficence, non-maleficence, and justice in the ethical decision-making process. Research by Suryadi et al. (2024) confirms that an understanding of principles developed during the professional stage helps students address ethical issues in medical practice, enabling ethical principles to become more than just conceptual concepts but also the foundation of professional behavior.

The findings from the reviewed literature align with the conceptual framework of biomedical ethics formulated by Beauchamp & Childress (2019), which positions autonomy, beneficence, non-maleficence, and justice as the four main principles for analyzing ethical dilemmas in the healthcare sector. Placing these four principles as a theoretical foundation emphasizes that understanding ethical principles is not merely a matter of mastering concepts, but rather a framework that must be applied to real-world cases. Tsekhmister et al. (2023) in a meta-analysis of a number of randomized controlled trials also showed that case-based learning improves academic achievement and students' ability to analyze cases, thus strengthening the findings of Karamzadeh et al. (2021) and Hlaing et al (2023) regarding the role of case-based learning in mastering ethical principles. The convergence between conceptual sources and empirical evidence strengthens the conclusion that ethics-based learning contributes to the understanding of the principles of medical ethics.

The Role of Ethics-Based Learning on Ethical Awareness and Ethical Reasoning

Ethics-based learning plays a role in fostering students' ethical awareness and ethical reasoning skills. Case discussions, ethical reflection, and experiential learning help students recognize situations containing ethical dilemmas and analyze them systematically. Research by Hlaing et al. (2023) showed that students who participated in case-based group discussions were able to examine ethical dilemmas by considering emotional factors, personal experiences, professional backgrounds, and legal aspects in their reasoning process. Active learning methods strengthen ethical reasoning through direct student involvement. Research by Alizadeh et al. (2025) showed that team-based learning in ethics education is associated with increased knowledge, ethical reasoning, moral sensitivity, and team-based decision-making skills. Research by Karamzadeh A (2021) added that case-based ethics learning combined with blended learning contributes to improving students' ability to analyze ethical issues in a more structured manner.

Repeated experience analyzing clinical dilemmas helps students make decisions more systematically and reflectively. The strengthening of ethical reasoning through active methods is consistent with broader evidence in health professions education. Tsekhmister et al. (2023) in their meta-analysis showed that case-based learning as an active method improves students' ability to analyze cases, although with a high degree of heterogeneity in results between studies. The strength of the evidence in the reviewed literature varies; most studies measured short-term outcomes such as knowledge and self-perception, while the impact on long-term ethical behavior is rarely evaluated longitudinally. This limitation indicates that the documented improvement in ethical reasoning should be interpreted as an initial achievement that still requires ongoing reinforcement at the clinical stage.

The Role of Ethics-Based Learning in Student Professionalism

Ethics-based learning plays a role in shaping students' professionalism by internalizing ethical values into professional behavior. Research by Sadeq et al. (2025) shows that ethics-based professionalism education is associated with increased general professionalism, empathy, and compassion in medical students. Research by Chen et al., (2024) confirms that empathy, as a core component of professionalism, can be developed through the educational process and is closely related to the quality of the doctor-patient relationship.

Learned ethical values are gradually internalized into professional attitudes when students have the opportunity to apply them in clinical contexts. Research by Shaikh et al. (2025) shows that clinical exposure strengthens certain aspects of professionalism, particularly patient confidentiality and communication skills, thus making ethics learning more contextual. Research by Buhumaid et al. (2024) illustrates that the process of learning professionalism occurs gradually, through awareness, recognition, and in-depth understanding, and then the application of values in practice.

Integrity, responsibility, and commitment to patient safety are formed through the inculcation of ethical values in daily learning and practice activities. Research by Suryadi et al. (2024) shows that learning clinical ethics from the professional stage helps students translate ethical values into consistent professional behavior in patient care.

These findings regarding the development of empathy and professionalism need to be placed in the context of evidence that is not always unidirectional. A systematic review by Howick et al. (2023) actually found that many studies reported a trend toward decreased empathy during medical education, particularly as students enter the clinical phase with its high workload and stressful environment. These differing directions of findings suggest that ethics-based learning does not operate in isolation but interacts with the educational environment; well-designed

ethics interventions have the potential to halt or reverse this downward trend. The process of internalization of values described in stages by Buhumaid is also in line with the professional identity formation framework mapped out in the review by Sarraf-Yazdi et al. (2021), which emphasizes the role of student socialization into the medical practice community in shaping professionalism, not merely the transfer of knowledge. Through this framework, professional attitudes are understood as identities formed through experience, role models, and ongoing reflection.

Supporting Factors and Barriers to the Implementation of Ethics-Based Learning

The success of ethics-based learning in shaping professionalism is influenced by a number of supporting factors. Research by Oliver & Collins (2024) shows that role models and the hidden curriculum play a significant role through the exemplary behavior of lecturers and clinical staff observed by students in their daily practice. Research by Jaramillo Villegas (2025) shows that a conducive clinical environment, active learning methods, and feedback from instructors strengthen the internalization of professional values, with feedback being one of the most effective strategies in developing student professionalism. Research by Alizadeh et al. (2025) adds that team-based learning also supports the strengthening of professional attitudes through active student involvement.

The concept of the hidden curriculum, one of these determining factors, was further examined in the scoping review by Parra Larrotta et al. (2025) showed that the hidden curriculum has both positive and negative impacts on the formation of professionalism and professional identity, because most professional values and behaviors are formed outside the formal curriculum, namely through daily interactions, role models, and institutional culture. Brown et al. (2020) emphasized that strengthening professionalism is not enough by simply adding content to the formal curriculum, but requires transparency and improvements to the learning environment and organizational culture that serve as sources of this hidden learning. This view reinforces the findings of Oliver & Collins (2024) and Jaramillo Villegas (2025), while also reminding us that the role models of lecturers and clinical staff can have both positive and negative influences on the formation of students' professional attitudes.

The implementation of ethics-based learning still faces several obstacles. Research by Jaramillo Villegas (2025) noted that time constraints in the curriculum, variations in teaching methods, and the lack of uniform definitions and assessment instruments for professionalism are recurring obstacles. Research by Noor et al. (2024) shows that the gap between ethical knowledge and professional behavior in the field still occurs, so that ethics learning needs to be designed to be applicable and not stop at mastering theory. These obstacles require a more systematic integration of ethics learning into the curriculum and educational environment.

Final Synthesis

A review of various literature confirms that ethics-based learning plays a positive role in shaping the professional attitudes of medical students. This role is evident in strengthening the understanding of ethical principles, ethical awareness, ethical reasoning, and the internalization of professional values such as integrity, responsibility, empathy, effective communication, and commitment to patient safety. The success of this approach requires the integration of a structured, contextual, reflective, applicable, and sustainable curriculum, supported by role models, a conducive learning environment, and a consistent assessment system.

Conclusion

The results of this literature review indicate that ethics-based learning plays a positive role in shaping the professional attitudes of medical students. This approach contributes to improving students' understanding of the principles of medical ethics, namely autonomy, beneficence, non-maleficence, and justice, as well as fostering ethical awareness and ethical reasoning in dealing with clinical dilemmas. The ethical values learned through case discussions, ethical reflection, experiential learning, and active learning methods are related to strengthening integrity, responsibility, empathy, effective communication, patient confidentiality, and a commitment to patient safety. The success of ethics-based learning is influenced by integration with clinical practice, exemplary role models, a hidden curriculum, applicable learning methods, and a supportive educational environment. Reinforcement of ethics-based learning needs to be structured, contextual, reflective, and ongoing so that students not only understand ethical values theoretically but also are able to internalize them into professional attitudes in daily clinical practice.

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